# Chapter 16

# PSYCHIATRIC INTERVENTION FOR THE BATTLE-INJURED MEDICAL AND SURGICAL PATIENT FOLLOWING TRAUMATIC INJURIES

HAROLD J. WAIN, PhD\*; SCOTT C. MORAN, MD<sup>†</sup>; MARVIN OLESHANSKY, MD<sup>‡</sup>; ANDREE BOUTERIE, MD<sup>§</sup>; AND CHRISTOPHER L. LANGE, MD<sup>‡</sup>

INTRODUCTION

INJURIES AND THE STRESS OF TRAUMA

THERAPEUTIC INTERVENTION FOR THE PREVENTION OF PSYCHIATRIC STRESS DISORDERS

INDIVIDUAL THERAPEUTIC COMPONENTS

TREATMENT

SUPPORTING MEDICAL STAFF WHO CARE FOR MEDICALLY INJURED TRAUMA VICTIMS

**SUMMARY** 

<sup>\*</sup>Chief, Psychiatry Consultation Liaison Service, Building 2, Room 6238, Walter Reed Army Medical Center, 6900 Georgia Avenue NW, Washington, DC 20307-5100

<sup>&</sup>lt;sup>†</sup>Major (P), Medical Corps, US Army; Psychiatry Residency Training Program Director, Psychiatry Consultation Liaison Service, Building 6, Room 2060, Walter Reed Army Medical Center, 6900 Georgia Avenue NW, Washington, DC 20307-5100

<sup>\*</sup>Colonel, US Army (Retired); Staff Psychiatrist, Psychiatric Outpatient Service, Department of Psychiatry, Tripler Army Medical Center, 1 Jarrett White Road, Honolulu, Hawaii 96822; formerly, Staff Psychiatrist, Psychiatry Consultation Liaison Service, Walter Reed Army Medical Center, Washington, DC 20307-5100

<sup>§</sup>Staff Psychiatrist, Psychiatry Consultation Liaison Service, Walter Reed Army Medical Center, 6900 Georgia Avenue, NW, Washington, DC 20307-5100 \*Lieutenant Colonel, Medical Corps, US Army; Program Director, National Capital Consortium Forsenic Psychiatry Fellowship Program, Department of Psychiatry, Walter Reed Army Medical Center, 6900 Georgia Avenue NW, Building 6, Room 3038, Washington, DC 20307; formerly, Staff Psychiatrist, Psychiatry Consultation Liaison Service, Walter Reed Army Medical Center, Washington, DC

#### INTRODUCTION

Trauma, whether resulting from the actions of humans or nature, as a precipitant of medical and surgical injuries can be emotionally overwhelming, not only for the patient dealing with the medical issues, but for the family and caregivers as well. Each will have to cope with the trauma of the event leading to the injury as well as the subsequent psychological sequelae. In the hierarchy of needs regarding patient care, stabilization of the medical physical injury of the patient takes precedence. However, often ignored are the psychiatric after-effects that traumatic injury may elicit.

For years the Psychiatry Consultation Liaison Service (PCLS) at Walter Reed Army Medical Center (WRAMC) has been helping patients deal with the psychiatric and psychological consequences of medical and surgical disease. Since the beginning of the global war on terror in 2001, the goal for the psychiatry consultation liaison service at Walter Reed has been two-fold: (1) decrease the psychiatric manifestations of trauma that may disrupt medical treatment, and (2) decrease the chronic and disabling psychiatric disorders that may occur as a result of trauma. Several chapters and articles describing in detail the PCLS approach to meet these goals have been published, including discussions of Gulf War I,1 the Pentagon attacks,2 the bombings of the US embassy in Nairobi,3 and the current wars in Afghanistan and Iraq.4 Since 2003, PCLS has seen over 3,000 battle-injured patients using the methods described in these chapters.

One of the main features of effective mental health intervention in polytrauma (or any consultation-liaison psychiatry setting for that matter) is for mental healthcare providers to ally themselves with the patient, the patient's family, and the patient's treatment team. Since the start of the global war on terror, PCLS

has been a routine part of trauma care at WRAMC. Immediately following the attack on the Pentagon on 9/11, casualties who required extended inpatient management of their injuries were admitted to civilian hospitals closer to the Pentagon than WRAMC. During that time, PCLS deployed teams to these facilities to assist in their clinical management. The PCLS teams were recognized consultants to the endogenous medical team of the local hospitals.

Trauma patients are routinely seen upon arrival at WRAMC and followed with the trauma team throughout the hospital stay as integral part of the medical care. Mental health interventions are provided to assist these patients in processing their trauma and its aftermath, support the family members who provide critical emotional support to these patients, and facilitate interactions with their treatment team for an optimal clinical outcome. All this happens as the patients undergo medical and surgical care and seek to adapt physically and mentally to the new realities imposed upon them by their traumatic injuries. Thus, a comprehensive program designed to help the medical institution as a whole respond to the psychological demands of a traumatic event must take into account the needs of not only the patients, but also the patients' families and medical staff involved in their care.

This chapter focuses on the psychological and psychiatric issues of medical and surgical patients suffering from traumatic injuries. This approach to care for these patients, their family members, and medical care providers, was developed by the PCLS, and is based on the experience of the authors and their colleagues in the care of these patients, family members, and treatment teams at WRAMC over the past 30 years.

#### INJURIES AND THE STRESS OF TRAUMA

Soldiers wounded in combat in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) receive immediate lifesaving intervention on the battlefield or in the battalion aid station by a combat medic, further treatment at a combat surgical hospital, and then aeromedical evacuation to Landstuhl Regional Medical Center. The military air evacuation system facilitates transfer of the patient to WRAMC following injuries in theater and stabilization at Landstuhl. Because of advances in medical care on the battlefield and through far-forward surgical interventions and advances in critical care transport, casualties survive wounds that in previous wars would have lead to certain death. Casualty rates have dropped from 1

in 2 in the American Civil War to 1 in 16 in OIF. This means many more patients survive to deal with the psychological after-effects of traumatic injury.

The nature and severity of traumatic injuries vary depending on the inciting event. Terrorist attack victims suffer from injuries that include severe and extensive burns, blunt trauma, multiple wounds from fragments or broken glass, and smoke inhalation injuries. Combat trauma includes gunshot wounds, fragment wounds, abdominal wounds, brain and spinal cord injuries, and amputations. Many of the soldiers injured in OIF and OEF have multiple categories of wound and are referred to as polytrauma patients.

The resulting injuries from the traumatic event often

represent the end of life as the patient knew it, and the beginning of a painful and arduous ordeal with an uncertain outcome. The surviving patient is subject to a broad range of psychological stresses throughout the process of recovery. Pain is exacerbated by frequent wash-outs and debridement, dressing changes, skin grafts, plastic surgery, and the need to exercise damaged limbs to avoid contractures. Medical treatments, including the use of narcotics, can often interfere with patients' motivation. The patient may need to be isolated until the danger of infection has passed, and extensive bandaging further reduces environmental contact, especially for facial or ocular wounds. A tracheotomy or traumatic brain injury (TBI) may interfere with communication.

Initial medical and surgical care is essential for the recovery of the trauma victim. The patient and the family report that this clinical care is often experienced as a significant ongoing stressor, and, in severe cases, as an extension of the trauma itself. The mental healthcare provider must take into account not only the effects of the traumatic event, but also the effect of the stressors arising from their medical and surgical management in the wake of trauma, in order to prevent or minimize psychological sequelae and to optimize clinical outcome.

Neurological and physiological disturbances and behavioral changes often follow traumatic injury that has resulted in amputations, brain injury, spinal cord injury, facial disfigurement, burns, blindness, and mutilating and castrating wounds of the external male genitalia. Stressors including pain, complications arising in the course of the patient's treatment and recovery, infection, the need for repeated incision and drainage or revision of surgical wounds, development of decubiti in the bedridden, side effects from medications, hospital-acquired infections, delays in recovery and prolonged hospital stays, and uncertainty in the outcome and time course are just a few of the emotional and psychological effects on the patient.

#### The Effect of Trauma

Trauma results in the normal adaptive mechanisms being compromised when psychological defenses cannot be employed. Self-integrity, self-confidence, and self-esteem may be undermined as a consequence of trauma. Trust of others is diminished, critical judgment is suspended, feelings of helplessness, dependency, and regression may occur. Feelings of rage, anger, and frustration may also result. Personality structures and defenses are pushed to their limits. Trauma may also recreate previous maladaptive patterns of behavior that had been dormant.

To facilitate patient care it is critical to obtain a good biopsychosocial and developmental history. The patient or the patient's family, or both, may have previous trauma or mental health issues that affect the response to trauma following injury. It is facilitative if the clinicians are aware of the underlying personality structures and defense mechanisms that the patient utilizes to personal advantage to help facilitate mental health interventions. The method of gaining this information needs to be different than traditional approaches with nontraumatized patients. A directive approach may cause a revivification of the trauma and contribute to regressive behavior that may disrupt medical care. A normal supportive conversational tone with humor (if possible, and if the provider is comfortable) is advocated.

Traumatic injuries may result in both short- and long-term emotional trauma, most of which are acute stress reactions and posttraumatic stress disorder (PTSD). Studies conducted at WRAMC have shown that the level of physical severity of injury may be correlated with the development of depression and PTSD following traumatic injury. It has also been well documented that traumatic injury in the civilian healthcare setting often results in stress disorders.<sup>8,9</sup> Rates of PTSD following traumatic injury vary from 12% to 30%, but at WRAMC battle-injured service members had a 4% prevalence at 1 month, and 12% prevalence at 7 months following injury. Trauma victims may also experience a variety of psychological responses that occur independently or simultaneously with the above disorders. Other diagnoses, including affective, anxiety, and somatoform spectrum disorders as well as TBI, may also occur. 10 Some of these responses that have been observed by the authors include separation anxiety, grief, anger, rage, fear, frustration, regret, shame, dissociation, regression, denial, and shattered ego integrity.

Soldiers in combat have a battle mindset while in theater. This mindset includes many psychological symptoms that, although helpful in a war zone, are not helpful when returning home or following evacuation for injury, as many of these symptoms may mimic acute stress disorder. These may include difficulty sleeping, irritability, hypervigilance, exaggerated startle response, and motor restlessness. Other symptoms that may develop (and that can be detrimental) are poor concentration, fear, helplessness, horror, anxiety, detachment, absence of emotions, numbing, and anxiety. Cognitive symptoms may consist of recurrent dreams, thoughts, and flashbacks. Behavioral symptoms can include avoiding people, places, activities, thoughts, emotions, conversations, or television programs reminiscent of the event. Typically these resolve over a period of time, but may persist after the initial trauma is over in a significant percentage of patients, and do not rise to the level of clinical diagnosis of acute stress disorder or PTSD.

PCLS routinely assesses patients for these symptoms and provides psychoeducational interventions, normalization of the responses, and empathic exposure as a means to develop resiliency and return patients to mental health. The clinician's awareness of the effect of these responses to the patient facilitates the development of therapeutic alliances with the patient that improve treatment outcomes and reduce stigma associated with mental health providers.

The severity of the injury and body part affected may also help to determine the patient's response to the traumatic injury. Injury to parts of the body with real or perceived significance may increase the patient's stress.11 Therefore, PCLS routinely assesses patients for body image and physical integrity issues following trauma. Phantom limb pain is often treated with a combination of medications and hypnotherapy performed at the patient's bedside. Patients are also taught self-hypnosis techniques to manage their pain. Patients with facial disfigurement and spinal cord injuries often have the most severe body image reactions to their injury. PCLS providers attempt to address these issues early in the course of treatment. In addition to the patient's emotional reaction to these types of injuries, medical and surgical providers also have difficulty with these types of injuries.

Trauma patients who experience severe pain are less likely to be amenable to psychotherapeutic interventions. Schreiber and Galai-Gat<sup>12</sup> identify uncontrolled pain as a stressor that, if not treated effectively, may result in the development of PTSD. Uncontrolled pain may also lead to the development of anxiety, depression, loneliness, hostility, and sleep disturbances. 13 Studies at WRAMC have also demonstrated that increased pain may be a predictor for the development of PTSD and depression in battle-injured soldiers. 14 PCLS uses many interventions to reduce or eliminate pain. As mentioned above, hypnotherapy is often practiced at the bedside. Other therapies—such as cognitive reframing, antidepressant medications, and stimulants—are recommended to the treating trauma team as adjuncts to manage pain.

Physical loss of a limb brings with it the added anxiety of potential social and interpersonal difficulty. Trauma patients are described by Blum<sup>15</sup> as experiencing a loss of identity, self-confidence, self-esteem, self-reliance, and ideal self. Horowitz<sup>16</sup> and Landsman and colleagues<sup>17</sup> noted that patient's reactions to traumatic injury can be similar to bereavement. In addition to concern regarding physical appearance,

patients sustaining an amputation may be concerned with the reactions from peers, the ability to earn a living, <sup>11</sup> socialization, dating, and sexual behavior. <sup>10</sup> Trauma victims are at risk for developing psychiatric illnesses based on these factors: exposure to trauma, intensity of exposure, psychiatric history, gender, and level of education. <sup>18</sup>

The need for early psychiatric intervention was recognized following the attacks on 9/11.4,19,20 Hoge and colleagues<sup>21</sup> demonstrated that the greatest deterrent to soldiers exposed to trauma who may need psychiatric intervention is their perception of psychiatry. To destigmatize mental health for the battle-injured soldier, the PCLS service was redesignated as Preventive Medical Psychiatry (PMP) to gain greater acceptance by patient, family, and staff alike. This change addressed the need for the mental health team to be seen as any other medical service, <sup>20</sup> and ensured that every patient from OIF/OEF hospitalized on a medical surgical unit at WRAMC was evaluated and followed. Integrating psychiatry into the trauma team and providing routine preventive psychiatric interventions with trauma patients may prevent psychiatric symptoms from becoming disabling. The benefit of this program is demonstrated by the fact that the rate of PTSD development among medically injured patients treated at WRAMC is lower than noninjured soldiers exposed to trauma.<sup>7,21</sup> Furthermore, early psychiatric intervention may also alleviate the stigma associated with being a psychiatry patient and allow appropriate psychiatric intervention to occur when necessary, often after the patient has left the hospital.

# Hospitalization and the Meaning of Injury

In the period immediately following injury, patients often report a sense of shock, denial, and disbelief. The feeling of being dependent on others can become intimidating and overwhelming. Fear over loss of life, limb, or capability, as well as a feeling of loss of control is a common occurrence. Apprehension of being abandoned prior to regaining control or receiving help can be very overpowering. Once help has arrived and the fear of being alone is relieved, a sense of initial comfort develops, along with potential dependency needs. Based on the severity of the injury, patients may not be aware of all that has transpired until they awake in the hospital. Some patients are initially elated at being alive. After a time, however, the elation may fade and anxiety and depressive symptoms may appear. Others who suffer brain injuries or loss of consciousness may never remember the event or the trauma and wait for others to fill in the gap.

In general, a patient who is exposed to trauma can

experience a threat to both physical and emotional integrity. Loss of body parts and threat of death or annihilation are also significant fears for these patients. They become vulnerable and dependent, a state many patients have not experienced in many years. Fear or discomfort with strangers may also become prominent because of the unknown effect of the disfigurement on the new relationship. Fear of not having as many loved ones around and leaving a safe environment are also major concerns for patients being discharged from the hospital. Patients' perceptions can result in childlike patterns of behavior, which lead to conflicts with the nursing and medical staff. Regression and dependency needs are frequently observed in traumatically injured patients, and an overwhelming sense of narcissistic injury is frequently present.

Complicating these factors are the anxieties of the patient's loved ones. The family's needs must be addressed so that their anxieties do not affect the patient and thus exacerbate an already emotionally complicated situation. For example, family members often choose to sleep in the patient's room rather than leaving them alone at night. This, however, can result in the patient later having difficulty sleeping if someone isn't in the room.

An individual's adaptive functioning may be compromised by the traumatic event. Most patients eventually find ways to deal with the emotional effects of traumatic injury, and although personality features that have been effective as coping styles in the past may become overwhelmed initially, patients usually self-correct. Patients with poor or disordered personality structures may have conflicts with staff or families and are at risk for developing maladaptive behaviors or psychiatric illnesses. These patients may respond in a less-than-optimal manner because medical or traumatic injuries can be an overwhelming stressor. These patients and families are vulnerable and need support and guidance from caring individuals. Developing a therapeutic relationship with them is imperative. Utilizing warmth, caring, empathy, and support can go a long way when attempting to form an alliance with the family and the patient, and can facilitate healthy behaviors and responses.

# The Role of Psychiatry Following Trauma

Nearly all survivors exposed to traumatic events briefly exhibit one or more stress-related symptoms.<sup>22</sup> In many instances these symptoms dissipate within a reasonable amount of time. However, symptoms persisting for a prolonged period following a traumatic event increase the probability of developing PTSD or other stress-related psychiatric disorders. Koren<sup>8</sup> found that injured soldiers were more than five times as likely to develop psychiatric symptoms than were those only exposed to trauma. Though the initial goal of the mental health team is to facilitate medical treatment, a secondary goal is to prevent or decrease the probability of chronic debilitating psychiatric symptoms. To meet these goals in treating the medical-surgical patient following a traumatic injury, new approaches were adapted at WRAMC.<sup>2,10</sup>

Rather than waiting for consultations to be received before intervention occurs, the PMP at WRAMC developed a therapeutic interaction to overcome the stigma of being seen by psychiatry. Overcoming this obstacle is important because many patients tend to downplay their distress and underreport their symptoms for fear of being labeled a psychiatric patient. (As discussed above, the PMP was developed to decrease the stigma associated with mental health and psychiatry).

Case Study 16-1: A 36-year-old soldier with a soft-tissue injury to the right eye, fractures to the left femur and tibia, and a right-leg below-the-knee amputation (BKA) responded in a sullen manner to his orthopaedic and physical therapy teams. Upon the initial visit by a psychiatrist he denied any problems as a result of the improvised explosive device (IED) blast. He claimed he did not need psychiatric intervention and was upset that the team referred him. When he became aware that the psychiatry approach was routine and preventive in nature, he began describing his concerns about his decisionmaking process while in theater that may have led to his unit receiving the blast it sustained. He continued to describe his concerns, and the psychiatry team worked to reframe what had happened while maintaining an advocacy role. As he accepted the routine of the psychiatry approach, he began to respond more favorably, assimilated the intervention, and cooperated more fully with his rehabilitation.

## THERAPEUTIC INTERVENTION FOR THE PREVENTION OF PSYCHIATRIC STRESS DISORDERS

The PMP service at WRAMC employs the Therapeutic Intervention for the Prevention of Psychiatric Stress (TIPPS) disorders model. The approach draws upon many tools used by the mental health provider in the consult–liaison setting. This intervention was developed to address the psychological needs of trauma victims, provide support to the individuals

and their families, assess psychiatric status, provide early intervention when needed without stigmatization of the patient, and support the staff. To help with the clinical process, objective instruments are given to patients while they are in the hospital. The questionnaires are helpful in providing objective data and facilitating follow-up.

The major components of the TIPPS approach are mental health becoming a routine part of trauma care, empathetic exposure therapy, developing a strong therapeutic alliance with the patient and family, normalizing the experience and the psychological response to the trauma, reinforcing resiliency, and promoting positive coping behaviors. TIPPS has been used successfully at WRAMC since the attacks on the Pentagon on September 11, 2001. Studies infer the effectiveness of this approach for reducing the prevalence of mental health disorders in battle-injured soldiers treated at WRAMC.<sup>7</sup> Other significant components of the intervention include recognizing personality styles and psychological defenses, countertransference and transference issues, normalizing events, cognitive reframing, educating patients and families, prescribing appropriate psychopharmacology, and utilizing hypnotic and relaxation techniques. Reinforcing patients' strengths regarding their survival was also a primary theme of this approach. A review of some of the principles of TIPPS follows.

# **Routine Consultation and Therapeutic Alliance**

The patients are initially approached with an informal style and avoidance of traditional psychiatric jargon. A typical introduction may begin by saying, "Hello, I'm Dr \_\_\_ \_ from Preventive Medical Psychiatry. Welcome back. We are sorry you had to experience your injury and we all thank you for what you did. You took care of us by being there. It is now our turn to take care of you." Family members are also greeted in a similar manner if they are present. The provider is introduced to the family as staff of the PMP service. The provider also lets the soldier and the soldier's family know that mental health assessment is part of the routine care for returning OIF/OEF patients. This approach frequently sets patients and families at ease. Providers are trained to be cognizant of the variety of reactions to mental healthcare that patients and families may have and adjust their approaches accordingly.

The therapeutic alliance is built with the patient and families over time, as patients are seen briefly several times per week. PMP involves the entire family unit in adjusting to, and recovering from, the traumatic event. The family may be seen separately from the patient as well as together. Understanding their position and problems is necessary. PMP social workers also follow patients and their family members twice a week. The child and adolescent psychiatry service joins the PMP for rounds and sees families with children of injured soldiers to assess the family support structure and to help the family deal with the effect of trauma.

Patients are asked to rate how they are feeling, their

pain, and their sleep, and if they are having any nightmares or feelings about the trauma. The development of the therapeutic alliance cannot be underestimated. It facilitates the assessment of psychological symptoms and treatment while in the hospital and allows for easier follow-up treatment if problems arise for patients or their families upon discharge. This helps ensure that patients feel comfortable approaching psychiatry for help, if needed.

# Transference and Countertransference in the Therapeutic Relationship

Understanding the interpersonal interaction between clinician and patients facilitates evaluation and treatment.20 Patients' responses to clinicians will often be expressed in various manifestations of transference. At times the transference can be modified by the actual behavior of the therapist. The need to elicit a therapeutic alliance and a positive transference from the trauma patient is crucial. This will likely occur when the clinician is perceived as both good and helpful in the here-and-now situation. Negative transferences are more likely to recreate spontaneous reenactments due to rapidly shifting mood, affect deregulation, and disconnection within self. The potential for revictimization may be enhanced or diminished by the negative transference experience of the patient. With a negative transference, the trauma patient may come to categorize the clinician as a past perpetrator. This occurrence may likely contribute to a regression or oppositional style to medical treatment. This is detrimental in particular for the wounded soldier because medical stabilization and recovery is of necessity. It is clearly essential for the clinician to recognize the significance of the transference responses and react in an appropriate therapeutic manner. During the early stages of therapy with trauma patients, the immediate goal is to establish the holding milieu for the emergence of positive transference.

Clinicians can also develop countertransference issues that need monitoring. Clinician overindulgence of patients' needs, silence, avoidance, and overidentification with the patient or family members can cause disruption in the recovery of the patient. The concept of neutrality can be lost and patients can feel revictimized. In general, being aware of patients' transference or countertransference issues and the effect on the therapeutic process allows for greater clinical clarity and appropriate interventions. Awareness of countertransference issues also allows the PMP clinician to be a more effective clinician and consultant. Knowledge of these skills can help colleagues in other services in their interactions with their patients.

#### INDIVIDUAL THERAPEUTIC COMPONENTS

## **Empathic Exposure**

Providers allow the patient to process the trauma through empathic supportive exposure therapy. In other words, in an empathic manner, patients are asked to reflect on their traumatic experiences, suggesting that description at present is helpful in the future. Empathic exposure may help them integrate the past trauma into their present stream of consciousness. Patients are usually seen three times per week for 15 to 20 minutes. The frequency of this empathic exposure appears to allow for the normalization of the event and consolidation of the experience in the patient's memory.

Providers are trained to offer rapid empathic responses to patients' recall of their trauma and injuries. As the patients continue to relate their trauma, empathic reinforcing statements are made about their psychological assets. These statements reinforce their positive behaviors during their descriptions. Nonthreatening techniques are employed and confrontational approaches are avoided. Comments that demonstrate patients' positive assets are quickly reinforced, such as, "How did you know to do that?" or, "Where did you learn that?" Traditional psychotherapeutic interventions aid the provider in supporting the trauma patient. Acceptance, respect, empathy, warmth, advice, praise, affirmation, and a sense of hope are qualities and characteristics the clinician is encouraged to display while working with these patients. Providers need to be viewed as genuine in their concern and support of the patient, while offering empathic validation and encouraging patients to elaborate on reactions relevant to the trauma. These techniques reinforce the therapeutic alliance and treatment. In summary, while the patients are relating their traumas, clinicians find a way of reinforcing their assets. Providers continue this procedure each time they see these patients. Supportive reinforcing statements regarding their assets while they are describing their trauma may help them integrate the conflict in a more productive manner.

## Hypnotherapy

Hypnotic techniques are taught while the patients are in their beds. Providers have them practice breathing and then utilize a rapid hypnotic induction that patients can repeat to themselves. This can, at times, allow for management and control over symptoms such as pain, hypervigilance, and anxiety. It may also allow for distancing from the trauma—giving patients some control in finding a safe mental place where they can begin processing thoughts and feelings about the

trauma. The clinician can facilitate the patient's going to the imaginary safe place to process and reframe traumatic events. Subsequently these patients can get to their safe place on their own. These techniques can also be an outstanding adjunct to help pateints integrate their conflicts with phantom-limb pain, sleep, and smoking cessation in a facilitative manner. Many of the trauma patients at WRAMC smoke even when they know smoking disrupts wound healing.

## **Group Therapy**

As a supplement to individual therapy, groups can provide beneficial support and help many of the patients begin working through the process. Group therapy was demonstrated as an effective technique for treating Vietnam-era veterans with PTSD.<sup>23</sup> At WRAMC, groups are held twice a week in the hospital ward and led by providers. The groups are open to the medical and surgical injured patients. Topics such as anger, expectations, recognition of limitations, sexual fears, separation anxieties, survivor guilt, losses, family concerns, and public responses are discussed after initiated by a patient.

# **Pharmacological Interventions**

Pharmacological approaches are often used to facilitate mental health recovery from traumatic injury. Physical trauma results in significant somatic pain and, according to Schreiber and Galai-Gat, 12 uncontrolled pain may result in the development of PTSD. Some patients associate pain with the severity of their injury, which may also lead to the development of anxiety, depression, loneliness, hostility, and sleep disturbances. 11,13 Studies at WRAMC have demonstrated that patients with increased levels of physical injury are more likely to develop PTSD and depression following injury.<sup>7</sup> Furthermore, patients experiencing pain are less likely to respond to traditional psychotherapeutic interventions. 13 Thus, prompt pain control is critical in trauma patients and must be addressed early with judicious use of analgesics. PMP often recommends several adjunct treatments to the trauma team to manage pain, including tricyclics and other antidepressants, hypnotherapy, and relaxation therapy. Myriad pharmacological interventions are available to treat patients with psychiatric diagnoses or symptoms such as agitation, anxiety, or perceptual disturbances. Some of the agents utilized are antipsychotics, atypical antipsychotics, selective serotonin reuptake inhibitors (SSRIs), and serotonin-norepinephrine reuptake inhibitors.

#### Insomnia

Insomnia in the polytrauma patient is a near universal observation. Insomnia can be attributed to delirium, nursing care interventions, lab draws, pain, fever, and doctors' rounds, among other things encountered in the hospital. Benzodiazepines, anticholinergic medications, and antidepressants can interfere with clarity of thought and prevent psychological integration of the traumatic event, as well as foster the development of a delirium. Insomnia in the trauma patient is treated with a variety of interventions. First, orders are reviewed to ensure that nursing care interventions (such as q4 hour vitals) are not still ordered when no longer necessary. Patients are given permission to close their doors and put signs up instructing that they not be disturbed. The nursing staff is encouraged to allow for uninterrupted sleep. Patients are also educated on sleep hygiene, and relaxation techniques are taught to help them rapidly induce sleep.

Often, however, these measures are insufficient. Medications for insomnia can be extremely useful in the hospitalized setting. The choice of medication is often based on the patient's symptoms, medical condition, and preference. For nightmares and sleep maintenance problems, Seroquel (quetiapine; AstraZeneca US, Wilmington, Del) is often used in low doses, 25–100 mg. There has only been one small open-label study published looking at Seroquel and sleep quality, which showed effects on nightmares and sleep maintenance. The experience

at WRAMC shows this approach to be effective and well-tolerated by patients. However, there have been a few patients who experienced elevations in their liver-associated enzymes due to Seroquel. There are other drawbacks. Seroquel is expensive and is an atypical antipsychotic; there is debate about its cost effectiveness and the risks of dyslipidemia, bloodsugar abnormalities, and extrapyramidal symptom disruptions. In treating thousands of patients at WRAMC with this medication, there have not been observed instances of these problems. Other antipsychotics have been employed somewhat successfully for the treatment of sleep disturbances with nightmares. Other medications may be indicated in the presence of flashbacks or disorientation and emotional dysregulation from multiple or high-dose pain medications or other medical issues.

Ambien (zolpidem; Sanofi-Aventis, Bridgewater, NJ) has not been found to be as useful as Seroquel in patients at WRAMC. The half-life of Ambien is short and patients quickly develop a tachyphylaxis. Also, Ambien does not seem to work as well for stress-induced insomnia. When insomnia is associated with anxiety or depression, mirtazapine can offer relief. Nightmares, when overwhelming, have been reported to respond well to prazosin, though caution should be exercised due to its hypotensive properties. One small study of 10 patients showed some alleviation from nightmares in patients with PTSD using prazosin. A discussion on the use of pharmacotherapy is provided elsewhere in this volume.

#### **TREATMENT**

As described earlier, a variety of psychotherapeutic and psychopharmacologic interventions, techniques, and styles are utilized. In the PMP service, the mechanism of normalization of feelings is a fundamental aspect of treatment. Soldiers in the initial phases of trauma recovery are not generally willing to discuss their feelings with the providers, but with the mandatory screening and monitoring that the service provides, patients become "used to" someone coming in and normalizing some of their "potential" emotional responses. After some time, they may often choose to speak more freely, knowing they are going to be listened to and understood.

The first step is to allow these patients to fully describe their losses. It is only through this step that the necessary information can be gathered to determine if their depression is from grieving, from a sense of helplessness in not knowing how they are going to handle a change of life as a result of their injury, or if there is a truly endogenous depression. In these initial

few sessions, mental health professionals can learn a great deal about value systems, usual responses to adverse life events, and expectations and fantasies of what would happen in the next few months of these patients' lives.

These soldiers, regardless of the etiology of their situations, must be given a chance to mourn their losses. An essential aspect of working through this is identifying the loss, the importance of that loss in their lives, and its effect. In each of these "grieving sessions," the psychiatrist needs to focus on the recurrent themes and begin to lay foundations for growth and resiliency *despite* the loss. As these patients discover that life does not halt because of the loss, they realize that the traumatic incident is another chapter in the rest of their lives. They can then begin to recover their sense of purpose and well-being. Some soldiers, despite psychotherapeutic interventions, continue to have depressive or anxiety symptoms, and require pharmacological interventions. Fortunately, soldiers

in these situations typically respond well to the usual treatment course of antidepressants.

# **Depression and Mood Disturbances**

Being a patient often precipitates a sense of loss that many cannot verbalize. Because soldiers are taught throughout their military training to "bottle up" their feelings, their sense of loss can manifest itself though behavioral problems. This section addresses the various ways that loss can be experienced by these patients, how the process of normalization of experiences can allow them to work through their sensations, and effective treatment strategies for the more recalcitrant cases.

From the very beginning, battle-injured soldiers will generally indicate that they are simply "happy to be alive." However, this statement is often followed by a second statement: "I guess I was lucky." The progression of this thought is stunning; soldiers will seem genuinely relieved at their fortune, but an overriding sense of guilt actually visibly appears to overtake them, and they must attribute this fortune to luck to again regain their emotional control over survivor guilt. The reality of survivor guilt has been well established in patients who are covictims in traumatic events. In soldiers, this guilt is intensified by the ubiquitous code of teamwork that military service requires of its members. This feeling is often stronger in those patients who have minimal injuries compared to the death or severe maining of their peers.

Loss of functioning goes well beyond the mere physical loss of limbs. Many of these soldiers tend to be athletic and active in their preinjury lives. They perceive their lives as "forever changed" because of the amputations, and frequently believe they will have no ability to engage in their former activities. Although there is some basis in reality with this thought, unless they move through this phase, they will not be able to see the abilities they still have or may regain.

Case Study 16-2: AB was a 22-year-old Army sergeant. He was the team leader for four other infantry soldiers. The unit had been together in theater for 7 months when they were attacked by an IED on a routine patrol. AB was knocked unconscious by the blast, but awoke with a BKA of his left leg. He learned that two members of his team had perished in the blast, another had an amputation of his right arm and leg, and the fourth one had suffered a TBI and his status was unknown to the patient. AB spent 3 weeks in a facility before being transferred to WRAMC. In that time he had minimal exposure to mental healthcare, primarily because of his statements that he was "doing fine." However, after his air evacuation to the United States, AB stated that he was "surrounded by the reminders of his loss," and became

tearful during his history and physical with his primary team. They requested a consultation. AB spoke of his loss of his own limbs, but realized that he was "lucky." However, this conflicted with his sensation that he "should" feel more for his soldiers than for his own self. He stated that this was the reason that he spoke little of his feelings in his previous hospitalization, believing that if he focused on himself, he would be perceived as weak. AB was deeply troubled at his change of lifestyle, but extremely worried that he would need to "forever show his grief" when he was at his unit to pay homage to his team soldiers. Determining that he would "never be happy," he fell into a state where he would not participate in activities, have outside visitors, or speak with his unit liaisons as they visited in the hospital.

# Anxiety

During the acute period of hospitalization of battleinjured soldiers, the PMP service observes a range of symptoms in the anxiety spectrum of disorders. Most commonly seen are those symptoms that are consistent with acute stress reactions. In particular, the reexperiencing of traumatic events through nightmares, flashbacks, intrusive thoughts, and recurrent images are common. Equally common are symptoms related to hyperarousal, such as difficulty falling or staying asleep, hypervigilance, increased startle response, irritability, and poor concentration. Obsessive rumination themes in the injured soldiers include worries regarding the threat to physical integrity, the effect on current and future functioning, and the effect on family members and friends. Soldiers removed from theater often worry about unit members left behind and are distressed by their perceived inability to help their friends in the field. Many soldiers hear the sound of the blast or the gunshot that injured them replayed over and over either in their minds or in dreams. Others may ruminate over the death of friends and are overcome by survivor guilt. Very frequently battle scenarios are reviewed over and over and soldiers wonder what they might have done differently to have effected a different outcome. Some of the most distressing memories for patients include seeing fellow soldiers die, seeing dead children, and exposure to body parts. Finally, shame may lead to emotional conflicts that may ultimately feed anxiety.

In the absence of traumatic or anoxic brain injuries, where patients have no recollection of traumatic events secondary to organic causes, few patients seem concerned about overt dissociative symptoms (such as not recalling important aspects of the trauma or a feeling of emotional numbing or detachment) in the acute period. Indeed, it appears that most patients, at least in the initial period of hospitalization, seek to reconnect with family members and loved ones and

are particularly comforted by contact with commanders and unit members still in the field. Although some hospitalized soldiers may avoid television or movies that remind them of traumatic events, it is less common for patients to overtly avoid reexperiencing the traumatic events by refusing to discuss the trauma, or feelings and thoughts about the trauma. When this overt avoidance occurs, it should be particularly worrisome to the mental health provider and consideration for further intervention should be given.

In addition to symptoms that are consistent with acute stress disorder, anxiety may manifest in the form of specific fears or phobias, such as a fear of falling asleep (usually reported as fear of dreaming), fear of being alone (separation anxiety), or fear of being in the dark. Overt anxiety and panic attacks are observed infrequently. Often these are aggravated in soldiers with prior personal or family histories of anxiety disorders.

Rapid eye movement sleep behavior disorders are not uncommon where patients report acting out combat-related scenes, presumably during rapid-eye-movement sleep. Hypnogogic and hypnopompic phenomena and other perceptual disturbances may occur and may represent hyperarousal symptoms. The service member has just traveled across multiple time zones and may be undergoing frequent painful surgical procedures and necessary nursing interventions throughout the day and night (which continue to promote disturbance of the sleep—wake cycle). The utility of other treatments, such as image rehearsal therapy (where dream endings are more positively construed), are also being explored to address sleeping concerns and nightmares.

In the acute treatment setting, when these symptoms appear, it may be difficult to make a specific anxiety-disorder diagnosis, given that very frequently the service member does not meet full criteria for any one specific diagnosis. Additionally, there are many confounding factors, such as pain, pain medications (opiates, benzodiazepines, or anesthetics) or other medications or substances, head injuries, and other treatment factors that may account for, exacerbate, or create any of the aforementioned symptoms. Above all else, it is important to determine whether a general medical condition, particularly associated with delirium, is not causing or contributing to the anxiety symptom. For this reason, very frequently a diagnosis of anxiety disorder not otherwise specified may be given if one or more symptoms are particularly apparent and troublesome but the patient does not meet full criteria for a specific diagnosis. Additionally, a diagnosis of adjustment disorder with anxiety may be made, although in some cases it is difficult to deem that one person's response is in excess of what might

be expected for such an extreme situation.

Later in the course of medical stabilization, almost all of these symptoms lessen for most patients but may persist for a few. For example, patients may continue to reexperience traumatic events, particularly through nightmares. Likewise, new anxiety symptoms may emerge as patients are exposed to new situations outside of the hospital room. Another common example is when they may realize that they have less ability to emotionally connect with others and may have more social withdrawal, such as difficulty tolerating crowded areas. In a few cases, patients have refused to leave their hospital rooms altogether when medically deemed physically capable. As patients physically heal and develop more cognitive reserve, more standardized treatment strategies may be utilized (such as more formalized cognitive behavioral therapy) for the identified disorder. They may then participate in supportive group therapies or perhaps engage in psychodynamic therapy if more developmental and interpersonal concerns appear to be affecting the current condition. The importance of early and consistent treatment of these disorders is borne out by the fact that between 12.2% and 12.9% of soldiers at WRAMC with serious combat injuries returning from OIF or OEF will go on to manifest full criteria for PTSD, with the injury itself being a major risk factor for ultimate development of the disorder. Without these interventions it is likely that these numbers would be even higher.

The general approach to the acutely battle-injured soldier with anxiety begins, as for all patients, with an empathic stance that focuses on the building of a therapeutic alliance. Building early rapport helps the patient identify mental health specialists as part of the medical team and facilitates patient comfort with providers. Additional social assistance is provided where necessary to mobilize and establish a support network and resources for the patient in the hospital. The medical needs of the patient are reviewed and an understanding of the illness or injuries or both from the patient's perspective is explored to help identify beliefs and concerns (and perhaps any doubts or misgivings) that the patient may have regarding care or prognosis.

Psychoeducation is provided to help build a framework for treatment and to normalize current feelings and emotions. Supportive psychotherapy is offered to identify and engage patient strengths and to bolster ego defenses. Patients are encouraged to discuss the trauma "when they are ready," at which time providers reinforce what the patient did well throughout the traumatic event. Cognitive techniques are employed to help patients reframe thoughts about traumatic experiences so that anxiety is better understood and tolerated. Relaxation techniques may be taught and, in

certain instances, hypnosis may be added to help patients achieve a deeper sense of relaxation and mastery of emotions. Particular attention is paid to pain control and sleep, as any inadequacy in these areas may hinder the patient's ability to employ effective coping strategies. For this purpose, recommendations for the adjustment of pain medications or for the addition of new ones may be made to the primary medical team. Prior to making any medication recommendations, it is important to consider the patient's underlying medical condition, current medications, and allergies. Medication interaction checks should always be performed, given that most psychoactive medications have the propensity for interactions with multiple other drugs and antibiotics.

SSRIs remain the drugs of first choice for PTSD, generalized anxiety disorder, panic disorders, and social phobia. They may also be utilized for severe, prolonged acute stress, and for adjustment disorders, although some of the newer non-SSRI antidepressants such as venlafaxine and mirtazapine have also been used successfully. Of the SSRIs, sertraline and citalopram are generally preferred given their tolerability and relatively decreased potential for drug-drug interactions. Benzodiazepines are generally avoided where possible, particularly in PTSD, given the lack of data to support their use and the potential for addiction and worsening of PTSD in the long term. They are, however, occasionally used for the temporary relief of severe anxiety and panic attacks. Frequently, patients will already have benzodiazepines prescribed for other indications such as muscle spasms or phantom limb pain. In this latter case, patients should be educated on the effect of benzodiazepines on anxiety and the effects should be monitored. Treatment for persistent conditions may ultimately extend beyond the period of hospitalization. It is therefore important on a consult-liaison service to work closely with the medical team on aspects of discharge planning so that there is a seamless transition of care between inpatient and outpatient mental health providers.

#### **Cognitive Disorders**

Approximately one third of service members injured in OIF and requiring medical evacuation to WRAMC are found to have a TBI. Of these, about half are classified as mild TBIs and the other half are rated as moderate to severe. Many of the TBIs occur in the setting of polytrauma. All service members with an injury history that may be associated with a TBI (such as an IED blast exposure, a moving vehicle accident, or falls) are screened during the initial phase of their hospitalization for a TBI by a specialized team from the Defense Veterans Brain Injury Center. Addition-

ally, as part of the routine screening by PCLS/PMP of all injured service members who are admitted to WRAMC, a further psychiatric assessment of these inpatients is performed. A multidisciplinary team from neurology, physical medicine and rehabilitation, psychiatry, physical therapy, occupational therapy, and speech pathology provide ongoing assessment and treatment of these patients.

The role of the PMP includes clinical assessment of the TBI and treatment of associated behavioral sequelae. This begins in the intensive care unit (ICU) for more severely injured service members who arrive at WRAMC on ventilator support. In addition to the common problems of disorientation and frank delirium seen in patients with polytrauma as they are weaned from sedation, patients with TBIs may take considerably longer to wake up, may be more agitated and disorganized, and are generally less able to participate in their own care. Family members of injured service members with TBI are provided information that the prognosis for moderate-to-severe TBI is hard to predict and may be very frightening and upsetting to loved ones. In addition, therapeutic nihilism in staff members treating severe TBIs is not uncommon and frequently needs to be addressed by the consultation liaison psychiatrist. Recommendations for treatment of delirium and agitation often involve modification of the intravenous pain regimen, minimization of external stimulation, addition of neuroleptic medication, and restraint when other modalities fail. Sleep disruption is common and may be associated with other symptoms of hyperarousal. Preemptive treatment of sleep disruption with low-dose atypical neuroleptics has proven to be especially effective in decreasing hyperarousal.

On the medical and surgical wards, psychiatric evaluation of TBIs focuses on the ongoing assessment of cognitive function and the emotional adjustment of service members to their wartime experiences, their injuries, and their futures. The interplay of cognitive deficits and organic mood and personality changes with acute and posttraumatic stress disorders provides diagnostic and therapeutic challenges. Conversion disorder is not uncommonly seen in the context of mild TBI and takes the form of embellishment and exaggeration of cognitive deficits, sensory and motor abnormalities, gait disturbances, and stuttering.

Case Study 16-3: GQ is a 32-year-old active duty E6 with 13 years in service. He was injured by an IED explosion while on a mission in OIF that resulted in a penetrating head injury. At a combat support hospital in Iraq, he underwent a left frontoparietal craniectomy for removal of an embedded fragment and duraplasty, and placement of an intracranial pressure (ICP) monitor. The patient was then transferred to Landstuhl Regional Medical Center in Germany where his ICP was noted to be increased to 15–22 mm Hg, but

interval head computed tomography (CT) was unchanged. Patient was noted to be combative when attempts were made to wean him off sedation. Once his ICP stabilized and the monitor was removed, the patient was transferred to WRAMC, where he arrived intubated and sedated. Following the patient's admission to the WRAMC ICU, his wife was seen daily at his bedside by the PCLS staff. Several days into the hospital stay, his wife became extremely distraught. She reported that she had been told by the ICU house staff that her husband's prognosis was guarded. Additionally, she was shown his head CT scan and interpreted the large area of skull loss from the craniectomy as massive brain loss. She did not know if she could live with her husband "being a vegetable." A meeting with the patient's wife, PCLS, and the ICU team was useful in correcting her misunderstanding of the CT scan and providing her with a better understanding of his prognosis. The patient was subsequently extubated and was initially agitated and moving only his left side. Over the next month he made a gradual recovery, with resolution of posttraumatic amnesia and return of speech and full motor activity. He denied flashbacks, hyperarousal, anxiety, depression, or other symptoms of acute stress disorder, with the exception that he had difficulty sleeping. He was treated with increasing doses of Seroquel up to 75 mg for his sleep difficulty. He actively participated in physical therapy, occupational therapy, and cognitive therapy with speech pathology, and was transferred to a Veterans Administration center for cognitive rehabilitation. He made an excellent recovery, had a cranioplasty for his skull defect, and eventually resumed working in his previous capacity, albeit in a nondeployable status.

#### Follow-Up Contact

All patients are given a contact number and encouraged to call the PMP office at WRAMC should concerns develop for the patients or their families. They are also called 30, 90, and 180 days following discharge from the hospital. One of the early goals has been to make psychiatry an ally to the patient. When patients have returned to their homes they have found it easier responding and receiving intervention, and when crises occur they appear more willing to accept referral recommendations. In general, patients who need treatment upon leaving WRAMC are referred to resources within the military, veteran's health system, or civilian community.

# The Trauma Patient's Family

Family members also experience psychological trauma as a result of the injury of their loved ones. 24-27 Families typically know little about the extent of the injuries or their prognosis, and therefore experience more anxiety and feelings of helplessness. 11 Crisis intervention for the family members of trauma victims may be needed.

It is difficult to predict how family members will react to the trauma and the injuries sustained by the patient. The experience of having a family member injured may exacerbate family malfunctioning.<sup>17</sup> However, the interventions to assist these families in coping with the traumatic event may lessen the family member's chance of developing secondary PTSD.<sup>26</sup> Trauma patients need as much support as possible, and family members are often better at providing emotional support and reassurance to the trauma patients than the staff.<sup>24</sup> Effective therapeutic family interventions may not only help the family members cope with the traumatic events but may help the patient as well. The family's anxieties tend to exacerbate the patient's conflict. Negative family behavior may also have a deleterious effect on the nursing staff. But if the family remains stable and supportive, the patient's anxiety is decreased and outcome is improved. The family's built-in support system may need to be augmented with professional help.<sup>28</sup> The purpose of the family crisis intervention is to build up the family's coping skills and resolve symptoms associated with psychological trauma. Sharing meals with families of other trauma patients, for example, also provides the family with additional support.<sup>26</sup>

Initially it is important that family members of the injured soldier have access to food, clothing, and shelter. A family assistance center is available 24 hours a day at WRAMC. This alleviates any additional stress and allows the family to focus its attention on the patient and deal with the ongoing events. <sup>26</sup> Each institution needs to provide personnel to help with this task. At WRAMC, PMP social workers are advocates for patients and their families.

Brief supportive counseling has also been proven effective at reducing anxiety in family members of trauma victims. 11 PMP staff will often spend time with family members interviewing and supporting them emotionally. Support groups formed specifically to assist these families provide an outlet for them to address their needs and feelings.28 When developing family groups, Harvey and colleagues<sup>28</sup> found that families were more willing to attend when the group focus was on education and families sharing their stories. Families attending these support groups realized that they were not alone and were able to support each other. Additional benefits the families received from attending these groups included the ability to share feelings, reduce anxiety, instill hope, and gain a better understanding of their family members' injuries, medical treatments, and hospital procedures. PMP social workers also started a group for spouses and other family members of injured soldiers to allow for empathetic sharing and support. Groups are offered twice weekly for spouses and other family members. Topics include fear, frustration, the need to protect the injured patient, depression, anger, education, coping with disabled spouses, and feelings of alienation and disappointment.

Based on experiences at WRAMC, families are also seen by a provider in PMP in the hospital. Family members are assessed to determine how their children are adjusting, and how parents educate their children about the patient's injury. Many of the techniques used with patients are often effective with families. Empathic listening, reassurance, and normalization are usually enough to help family members through their initial emotional response to the trauma. Staff members of the child and adoles-

cent psychiatry service routinely see the families and assess their psychological response to the trauma. Education and support to the children is provided as needed.

Case Study 16-4: BB is a 35-year-old male with BKAs from injuries sustained in OEF. The patient was flown to Germany and then air evacuated to WRAMC. Initially his wife was very supportive and attentive, but as the rehabilitation progressed, greater frustration was observed. Ambivalence about her role and problems with her in-laws became prominent. Therapeutic interventions were undertaken and as a result she began to understand the normalcy of her behavior. This allowed her to understand her conflict and recommit herself to the marriage. The wife was given the PMP phone number for follow-up.

# SUPPORTING MEDICAL STAFF WHO CARE FOR THE MEDICALLY INJURED TRAUMA VICTIM

There has been relatively little research conducted regarding the psychological impact that working with trauma victims has on medical staff<sup>29,30</sup> and the resources available to them. Taylor<sup>31</sup> suggests that, on average, there are three major disasters per week worldwide. By responding to the needs of these disaster victims, nurses and clinicians may be placing themselves at risk of experiencing secondary trauma. Dyergrov<sup>32</sup> suggests that among disaster workers, 80% are likely to experience emotional disturbances following the event, although only 3% to 7% are likely to experience significant psychological disruptions.

The myth that those in the helping profession are somehow immune to the stresses experienced by those they help, and therefore are unaffected, was debunked by Bamber.<sup>33</sup> Professionals, however, may be reluctant to seek help.<sup>34</sup> To help destignatize mental health, PMP has routine visits with the clinical staff. For example, groups have been established in which nurses share their conflicts. Mutual support is also received. Nurses are included as team members in PMP and visit the wards to work with the nursing staff. Education about stress and responses are given when appropriate, and formal lectures are also provided.

Often overlooked is the stress the physicians experience, which may be exhibited during "curb-side" conversations.<sup>35</sup> Colleagues at times are wary about intervening and invading another's privacy. Providers are often concerned that their records or promotions will be affected if they seek help from the PMP. They also worry that others might see them as "weak." For instance, a surgeon walking in the hallway asked, "Can I ask you a question about one of my colleagues? He is not sleeping and has been irritable. What can I give or tell him?" While the psychiatrist should respond

as if the advice is for the surgeon's colleague, there should be an awareness that the question may be about the surgeon. After maintaining the relationship, the surgeon could be asked if the conversation was really about a colleague. The psychiatrist could then offer to see the surgeon in the PMP office. In general, offering support and time to talk is necessary.

Physicians are, at times, reluctant to talk about their fears and frustrations. Giving lectures to the medical staff and maintaining a professional, empathetic relationship are essential to medical and surgical providers seeing mental health as a resource for themselves. At times, it has been helpful to hold groups for physicians prior to their morning rounds, where support is offered and difficult cases are discussed. E-mail messages and notes about stress are also distributed via department channels. These approaches have been extremely helpful.

A similar approach has been undertaken with administration and command staff. Maintaining a close working relationship with command is imperative for the needs of the service and for its commander's needs as well. Many forget that the commanders are under stress and may not have any outlet. Keeping them informed, as well as being available for their concerns, will help contribute positively to a successful approach.

Last, but not least, the mental health providers also need support. Reinforcement of their skills and keeping them educated about providing new approaches is helpful. Maintaining a positive esprit de corps and sensitivity to each other's needs also helps. Giving them time off and the use of humor, lunches, and dinners may also help. It is imperative that leaders keep an open door and be sensitive to the frustrations and countertransference issues of the providers. In particular, this is important with younger physicians and other staff that may be deployed. Sensitivity to

these concerns is incumbent upon members of the PCLS/PMP staff.

#### **SUMMARY**

Physical injury as result of a trauma is an overwhelming experience that results in a life-changing event. Exposure to the trauma of war may result in psychiatric sequelae, but exposure to both physical and emotional conditions can have a geometric effect on psychiatric symptoms. Though most trauma patients adjust well and recognize that symptoms dissipate, others need psychiatric intervention. Based on past experiences, psychiatry staff at WRAMC developed an early intervention treatment plan for responding to injured soldiers. Traditional debriefing (classical incidence stress debriefing) interventions were not effective in this population. A new approach, under the umbrella of therapeutic intervention for prevention of psychiatric stress symptoms, was developed. This program entails intervening early without a formal consultation, destigmatizing mental health, adhering to a biopsychosocial approach, recognizing the importance of the therapeutic alliance using condensed aspects of traditional psychotherapeutic techniques, reinforcing patient assets, using relaxation or hypnotic techniques, prescribing appropriate pharmacology, and using empathic exposure. Though the goal is to avoid inappropriate pathologizing, treating psychiatric symptoms is necessary.

In an attempt to destigmatize mental health, a sub-

section (PMP) of the psychiatry service was created. Other goals of the intervention are to decrease the effect of disabling psychiatric symptoms, facilitate a speedy recovery, initiate integration of trauma into a normal stream of consciousness, ease symptoms, teach mastery or control techniques, and recognize and treat psychiatric illnesses early. Being able to refer patients for treatment if required after they leave the hospital is also a major component of this intervention. The development of a program for combat casualties necessitates the inclusion of patients' family members, hospital staff, and hospital leadership, as well as the mental health team serving this population. Besides the immediate positive therapeutic outcomes, a therapeutic alliance facilitates the acceptance of referrals by patients and family members upon discharge from the hospital.

Finally, based on the experience at WRAMC, becoming a part of a trauma team and being seen as member of PMP further expedited intervention and allowed psychiatry assistance for the patient without the typical stigmatization. Walking rounds further solidified patients, family members, and staff seeing PMP service staff as members of the trauma team. A similar plan can be developed at any hospital treating large volumes of trauma patients.

#### **REFERENCES**

- 1. Wain HJ, Jacaard JT. Psychiatric intervention with medical and surgical patients of war. In: Ursano RJ, Norwood AR, eds. *Emotional Aftermath of the Persian Gulf War: Veterans, Families, Communities, and Nations*. Washington, DC: American Psychiatric Press; 1996: 415–442.
- 2. Wain HJ, Grammer GG, Stasinos JJ, Miller CM. Meeting the patients where they are: consultation-liaison response to trauma victims of the Pentagon attack. *Mil Med*. 2002;167(9 suppl):19–21.
- 3. Wain HJ, Stasinos J. Response to bombing victims. Presentation at the State Department, Washington DC; 1999.
- 4. Wain HJ, Grammer G, Stasinos J, DeBoer C. Psychiatric intervention for medical surgical patients following traumatic injuries. In: Ritchie EC, Watson PJ, Friedman MJ, eds. *Interventions Following Mass Violence and Disasters: Strategies for Mental Health Practice*. New York, NY: Guilford Press; 2006: 278–298.
- 5. Weinstein EA. Disabling and disfiguring injuries. In: Jones FD, Sparacino LR, Wilcox VL, Rothberg JM, Stokes JW, eds. *War Psychiatry*. In: Zajtchuk R, Bellamy RF, eds. *Textbook of Military Medicine*. Washington, DC: Department of the Army, Office of The Surgeon General, Borden Institute; 1995: 353–381.
- 6. Furst SS, ed. Psychic Trauma. New York, NY: Basic Books; 1967.
- Grieger TA, Cozza SJ, Ursano RJ, et al. Posttraumatic stress disorder and depression in battle-injured soldiers. Am J Psychiatry. 2006;163:1777–1783.

- 8. Koren D, Norman D, Cohen A, Berman J, Klein EM. Increased PTSD risk with combat-related injury: a matched comparison study of injured and uninjured soldiers experiencing the same combat events. *Am J Psychiatry*. 2005;162(2):276–282.
- 9. Ursano RJ, Norwood AR, eds. *Emotional Aftermath of the Persian Gulf War: Veterans, Families, Communities, and Nations*. Washington, DC: American Psychiatric Press; 1996.
- 10. Wain HJ, Grammer G, Cozza SJ, et al. Treating the traumatized amputee. *Iraq War Clinician Guide*. 2nd ed. Palo Alto, Calif: National Center for Posttraumatic Stress Disorder; 2004: 50–57.
- 11. Lenehan GP. Emotional impact of trauma. Nurs Clin N Am. 1986;21(4):729–740.
- 12. Schreiber S, Galai-Gat T. Uncontrolled pain following physical injury as the core-trauma in post-traumatic stress disorder. *Pain*. 1993;54:107–110.
- 13. Mohta M, Sethi AK, Tyagi A, Mohta A. Psychological care in trauma patients. *Injury*. 2003;34:17–25.
- 14. Grieger TA. Early predictors of later PTSD and depression in battle-injured soldiers. Paper presented at: American Psychiatric Association Meeting; May 24, 2006; Toronto, Canada.
- 15. Blum HP. Psychic trauma and traumatic object loss. J Am Psychoanal Assoc. 2003;51(2):415–432.
- 16. Horowitz MJ. Psychological processes induced by illness, injury, and loss. In: Milton T, Green C, Meagher R, eds. *Handbook of Clinical Health Psychology*. New York, NY: Plenum; 1982: 53–67.
- 17. Landsman IS, Baum CG, Arnkoff DB, et al. The psychosocial consequences of traumatic injury. *J Behav Med*. 1990;13(6):561–581.
- 18. Armfield F. Preventing post-traumatic stress disorder resulting from military operations. *Mil Med.* 1994;159(12):739–746.
- 19. Wain HJ, Bradley J, Nam T, Waldrep D, Cozza S. Psychiatric interventions with returning soldiers at Walter Reed. *Psychiatr Q*. 2005;76(4):351–360.
- Wain HJ, Gabriel GM. Psychodynamic concepts inherent in a biopsychosocial model of care of traumatic injuries. J Am Acad Psychoanal Dyn Psychiatry. 2007;35(4):555–573.
- 21. Hoge CW, Castro CA, Messer SC, McGurk D, Cotting DI, Koffman RL. Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *N Engl J Med*. 2004;351:13–21.
- 22. Morgan CA 3rd, Krystal JH, Southwick SM. Toward early pharmacological posttraumatic stress intervention. *Biol Psychiatry*. 2003;53(9):834–843.
- Brende JO. Combined individual and group therapy for Vietnam veterans. Int J Group Psychotherapy. 1981;31(3):367

  378.
- 24. Solursh DS. The family of the trauma victim. Nurs Clin North Am. 1990;25:155–162.
- 25. Brown V. The family as victim in trauma. *Hawaii Medical J.* 1991;50(4):153–154.
- Flannery RB Jr. Treating family survivors of mass casualties: a CISM family crisis intervention approach. Int J Emerg Ment Health. 1999;1:243–250.
- 27. Alexander DA. The psychiatric consequences of trauma. *Hosp Med.* 2002;63:12–15.
- 28. Harvey C, Dixon M, Padberg N. Support group for families of trauma patients: a unique approach. *Crit Care Nurse*. 1995;15(4):59–63.

- Robbins I. The psychological impact of working in emergencies and the role of debriefing. J Clin Nurs. 1999;8:263

  268.
- 30. Salston M, Figley C. Secondary traumatic stress effects of working with survivors of criminal victimization. *J Trauma Stress*. 2003;16(2):167–174.
- 31. Taylor SE. Adjustment to threatening events: a theory of cognitive adaptation. *Am Psychol.* 1983;38:1161–1173.
- 32. Dyergrov A. Caring for helpers in disaster situations: psychological debriefing. Disaster Manage. 1989;2:25–30.
- 33. Bamber M. Providing support for emergency service staff. Nurs Times. 1994;90(22):32–33.
- 34. Collins S. What about us? The psychological implications of dealing with trauma following the Omagh bombing. *Emerg Nurse*. 2001;8(10):9–13.
- 35. Wain HJ, Grammer G, Cozza SJ, et al. Caring for clinicians who care for traumatically injured patients. *Iraq War Clinician Guide*. 2nd ed. Palo Alto, Calif: National Center for Posttraumatic Stress Disorder; 2004: 62–65.